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ABSTRACT

This document addresses the first objective of a study to develop criteria to measure the effectiveness of vocational education demonstration projects. An introduction provides background to the project and the issue addressed here, namely the issue of interim and final acceptable evidence of project impact, including the criteria, documentation, and standards that are considered sufficient for evidence of project effectiveness. Section II describes the strategy for defining acceptable evidence, which consists of conducting a literature review to assess the state of the art in measuring the effectiveness of educational innovations, formulating a draft of the interim and final acceptable evidence, reviewing the draft with an advisory panel, and revising the draft. Sections III and IV present the revised interim and final criteria, standards, and documentation. Three criteria define interim acceptable evidence: demonstration impact, dissemination, and efforts toward institutionalization. These three criteria define final acceptable evidence: utilization, long-term impact, and continuation/adaption impact. Two paradigms outline the criteria, documentation, and standards for the interim and for the final acceptable evidence. Suggestions for data collection are made in each section. Section V summarizes the document. (YLB)

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DEVELOPMENT OF CRITERIA TO MEASURE THE EXTENT OF IMPLEMENTATION AND THE EFFECTIVENESS OF DEMONSTRATION PROJECTS IN VOCATIONAL EDUCATION

USOE CONTRACT NO. 300-78-0574

Recommendations For
Interim and Final Acceptable Evidence

Submitted To:

BUREAU OF OCCUPATIONAL AND ADULT EDUCATION
U.S. Office of Education
Washington, D.C.

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
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Submitted By:

DEVELOPMENT ASSOCIATES, INC.
2924 Columbia Pike
Arlington, Virginia 22204

May 15, 1979

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I. INTRODUCTION

Studies conducted by the General Accounting Office* and a committee of the National Academy of Sciences** have concluded that vocational education demonstration projects funded by the U.S. Office of Education have not had documented, widespread impact. Because of these and other findings, significant additions to the Vocational Education Act of 1963 were incorporated into the Education Amendments of 1976. While sustaining the long-standing legislative commitment to further research and development in vocational education, the amendments include a sharpened demand for specific, identifiable benefits to result from the R&D expenditures. Thus, at several points the new legislation requires that grants and contracts be made only when the applicant demonstrates a reasonable probability that improved products or practices will result which will be used in a substantial number of classrooms or other learning situations within five years after the termination date of the federal grant award.

In response to the legislative mandate and other needs identified by the U.S. Office of Education, Development Associates, Inc. is conducting a study to develop criteria to measure the effectiveness of vocational education demonstration projects. The study has the following specific objectives:

- To define and specify what will be considered interim and final acceptable evidence that a demonstration project has resulted in improved teaching techniques or curriculum materials that have been used in a substantial number of classrooms or other learning situations within five years after the termination of the grant or contract. (Interim acceptable evidence is that evidence which should be expected during the last phase of external federal support and final acceptable evidence is that evidence which should be expected within five years after the termination of federal support.);

- To generate and recommend criteria for the review of demonstration project applications or proposals, the use of which will distinguish those applications which are predictive of the ability of the applicant to achieve the interim and final acceptable evidence specified in response to the above objective;

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*General Accounting Office. Career Education: Status and Needed Improvements. Washington, D.C.: General Accounting Office, Division of Manpower and Welfare, 1976.

**National Academy of Science's Committee on Vocational Education Research and Development. Assessing Vocational Education Research and Development. 1976.

- To produce a monograph for improving and measuring the impact of vocational education demonstration projects, for use by program planners, implementers, monitors, evaluators, and disseminators; and

- To diffuse the products of this project to appropriate Curriculum Coordination Centers, State Department of Education personnel (including RCU directors), and local education agency personnel (including local directors of federally-administered vocational education demonstration projects) through the preparation of the monograph and the conduct of training workshops.

This document addresses the first objective listed above, the issue of interim and final acceptable evidence of project impact, including the criteria, documentation, and standards which are considered sufficient for evidence of project effectiveness. In addition, some suggestions for data collection are made.

II. STUDY STRATEGY

As specified by USOE in the Scope of Work for this study, acceptable evidence of the effectiveness of vocational education demonstration projects is to be divided into two components, defined as follows:

Interim Acceptable Evidence - That evidence of impact which should be expected during the last phases of federal support.

Final Acceptable Evidence - That evidence of impact which should be expected within five years after the termination of federal support.

The strategy for defining acceptable evidence consisted of conducting a literature review to assess the state of the art in measuring the effectiveness of educational innovations, formulating a draft of the interim and final acceptable evidence, reviewing the draft with an advisory panel, and revising the draft, as necessary. In addition, the feasibility and validity of the proposed acceptable evidence had to be considered within the context of the legislative mandate and two USOE assumptions which defined the scope of the study. These assumptions were:

- Neither followup data from the original demonstration site nor from adapting sites, or outcome data from adapting sites were to be part of final acceptable evidence (that evidence collected after termination of federal support). The collection of these data were considered beyond the scope of what USOE felt was feasible. Outcome data from the original demonstration site were designated as reasonable for inclusion as interim acceptable evidence (that evidence collected during the last phases of federal support).

- Setting of standards for project costs and for the relationship between outcomes and costs were considered outside the scope of this study. Thus, criteria and standards for interim evidence relative to costs should be restricted to whether or not certain data are collected by the demonstration project and are available for examination.

The purpose of the literature review was: (1) to establish the state of the art in measuring the impact and spread of educational innovations, and (2) to establish the state of the art in measuring what have been considered successfully implemented and documented demonstration projects. The results of the review indicated that a significant number of studies discuss variables associated with project success, but criteria used for measuring project success overwhelmingly focus on immediate rather than long-term impact. The use of measures of long-term impact and diffusion of educational innovations is sparse.

Based on the literature review and the USOE assumptions, a draft framework for interim and final acceptable evidence of project impact was developed. This framework was then reviewed and discussed during a two-day meeting with an advisory panel representing various constituencies in the field of vocational education. These constituencies included federal decision-makers, state directors of vocational education, directors of research coordinating units, advisory council representatives, local practitioners, and national evaluators of the vocational education demonstration effort. Following intensive discussions, the panel reached the following conclusions:

- Interim acceptable evidence should include an assessment at the original demonstration site of the attainment of project objectives concerning project outcomes such as student outcomes, teacher outcomes, etc.
- Interim acceptable evidence should include the attainment of project objectives concerning the dissemination of information. These dissemination objectives should be stated in the project's proposal.
- The extent to which a demonstration project and its objectives related to the state or USOE plan for vocational education should be determined during the proposal review process and should be a criterion for project funding, rather than interim acceptable evidence.
- Final acceptable evidence should include the extent of utilization of demonstration project products (in part or in whole) in the original LEA and/or school and in adapting organizations. The demonstration project should keep records of persons or organizations to whom project material was disseminated so they can be contacted later. The responsibility for the collection of data from adapting sites belongs to the funding agency (USOE or SEA).
- Although the collection of followup data from the demonstration site and outcome data from adapting sites would improve the assessment of the project's effectiveness, it is not reasonable to expect funding agencies (USOE and SEA's) to collect these data, particularly in light of the USOE assumptions defining the scope of this study.
- Final acceptable evidence should include attitudes toward and satisfaction with the demonstration project product(s) on the part of teachers and administrators at the original LEA and at adapting organizations. These data should be collected on a sample basis.
- Although the criteria to be included as interim and final acceptable evidence of impact should be specified, national standards for each criterion against which all projects can be measured are not possible. Specific standards, however, for individual RFP's should be developed by funding agencies (USOE and SEA's). The relative weights that are given to the variables in reviewing proposals and applications for funding should also be specified in the RFP.

In subsequent discussions with the USOE following the panel meeting, the first study assumption was reconsidered since it was felt that the draft criteria may be regarded as insufficient evidence of program effectiveness if followup data from the demonstration site and outcome data from adapting sites were excluded. Thus, the final acceptable evidence was revised to reflect the change. It was also decided that, to the extent possible, standards should be set. These standards may in some cases be set at a minimum level in order to be appropriate for the many different types of demonstration projects which are funded. Higher standards may then be defined in RFP's written by USOE or SEA's for specific types of projects. The revised interim and final criteria, standards, and documentation are presented in the following sections of this document.

III. INTERIM ACCEPTABLE EVIDENCE

Interim acceptable evidence is defined as that evidence of impact which should be expected during the last phase of federal support. Its purpose is to assess the project's success in terms of its immediate impact whereas the final acceptable evidence evaluates the long-term impact and spread of the innovation.

Three criteria are used to define interim acceptable evidence. These are demonstration impact, dissemination, and efforts toward institutionalization. These criteria were designed to answer the following questions:

- Did the demonstration project have an immediate impact on its target group(s)?
- What dissemination strategies were used?
- Did the dissemination materials contain sufficient coverage and details about the demonstration project so that it could be replicated?
- Have efforts been made toward institutionalization of the project?

The long-term effects of the project on the target group(s) and the impact of the dissemination strategies are addressed in the final acceptable evidence.

The paradigm presented in Exhibit 1 outlines the criteria, documentation, and standards for the interim acceptable evidence. The criteria define the elements to be measured while the documentation addresses the type of data to be collected. Although establishing standards for each criterion is difficult due to the diversity of the demonstration projects, an attempt has been made to establish minimum standards wherever possible.

A. Demonstration Impact

Demonstration impact is the first criterion for interim acceptable evidence and refers to the extent of immediate impact the demonstration project has on the target group(s) upon termination of exposure to the project. By contrast, the final acceptable evidence includes followup of the demonstration project target group(s) one to two years later to determine the long-term effects of the intervention. The project target group(s) are usually students but can refer to other populations depending on the primary objectives of the project.

EXHIBIT 1

INTERIM ACCEPTABLE EVIDENCE

CRITERIA	DOCUMENTATION	STANDARD
Demonstration Impact:		
Extent of immediate impact on demonstration project target group(s).	Primary outcome measures from demonstration site including adequate recordkeeping system for followup data collection.	Significant positive primary outcomes which can be attributed to program intervention.
Dissemination:		
Quality and extent of dissemination activities.	Evaluation of dissemination strategies and materials.	Dissemination strategies and materials include sufficient coverage and details of program to facilitate replication.
	Enumeration of dissemination activities, including adequate records of recipients of program materials.	Achievement of dissemination objectives stated in the project plan.
Efforts Toward Institutionalization:		
Attempts being made to insure program longevity after termination of federal funding.	Description of efforts being made.	The presence of efforts being made toward institutionalization.

Primary outcome measures from the demonstration site provide the documentation for demonstration impact. Primary outcomes are project results which are measured upon completion of exposure to the project and are related to the project's primary objectives. Most often, primary outcomes, like followup measures, refer to the impact on students since the primary objectives of most vocational education demonstration projects focus on improvements in students. However, there are exceptions. Some projects focus on teacher training, changes in institutionsl procedures, and other such things. Therefore, project outcomes are stated as primary outcomes rather than student outcomes and are directly related to the project's primary objectives.

Standards for demonstration impact on the project target group(s) refer to the reliability and validity of the measures used and the application of an appropriate evaluation design and data analysis plan. In other words, the standards refer to the credibility of the evidence that the claimed effects are attributable to the intervention. Where applicable, pre- and post-testing should be conducted using both project participants and a comparison group. Many projects are currently doing this, but it is not a general practice. Numerous books address the issue of sound evaluation practices and it is not the purpose of this document or, for that matter, any of the other study products, to duplicate their efforts. However, one of the objectives of the monograph will be to encourage consistently good evaluation practices across all vocational education demonstration projects and these issues will be covered in some detail in the monograph to be developed as part of this study.

B. Dissemination

Dissemination is the second criterion for interim acceptable evidence and refers to the quality and extent of the dissemination activities. Although dissemination is a criteria for interim acceptable evidence, it is considered an indication of project success rather than project impact because it evaluates a condition that is necessary but not sufficient for project impact in terms of spread and eventual adaption of the program at other sites. That is, successful dissemination is a necessary prerequisite to spread and adaption beyond the host site.

Dissemination will be documented in two ways. The first consists of evaluating the dissemination strategies and the contents of dissemination materials. The second is an enumeration of dissemination activities, including keeping adequate records of recipients of project materials so they can be contacted at a later date when adapting sites are to be identified in order to collect data as a part of final acceptable evidence.

The evaluation of dissemination strategies and materials refers to content rather than format. The standards are based on whether coverage and details of the project, including costs, have been presented in sufficient detail to facilitate replication in potential adapting sites. The monograph will recommend that the project plan include dissemination objectives. Standards for dissemination can then be based upon the extent to which these objectives were achieved. As stated previously, this is an interim measure of project success. It answers the question: Has the project attained its dissemination objectives? The final acceptable evidence evaluates the impact of the dissemination strategies when it looks at the actual adaption of project products at other sites.

C. Efforts Toward Institutionalization

Efforts toward institutionalization is the third criterion for interim acceptable evidence and refers to attempts being made to insure program longevity after termination of federal funding. For example, efforts may be made to continue the program at the host site after the termination of federal funding by requesting additional funding from the LEA or the SEA, or infusing the project products into the ongoing curriculum. In another instance, attempts may be made to incorporate program materials into in-service teacher training or college credit courses for teachers. Another example would be efforts to obtain SEA approval of the program and incorporation into a state diffusion system or network. This criterion is not considered an impact measure, but is considered an important indicator of program longevity that should be present in the last phase or year of the demonstration project, if not before. It addresses the question of what will become of the program after termination of federal funding. If efforts toward institutionalization are not evident during the last phase of the demonstration project, it is unlikely the program will survive. Documentation consists of a description of the efforts which have been made.

Standards for this criterion are difficult to set because of the diversity of the projects and their location. As a result, we think the best approach is to judge the criterion in terms of its presence or absence and state the standard as the presence of any efforts toward institutionalization.

D. Suggestions for Data Collection

During the process of defining the criteria, documentation, and standards for interim acceptable evidence, considerable attention was given to procedures for collecting the necessary data. The major issue was who would have the responsibility for collection of the interim acceptable evidence since some data would have to be collected throughout the life of the project and should be available in the last phase or year of federal funding. Given the nature of the evidence, we recommend that:

- Plans for data collection and adequate recordkeeping for the interim acceptable evidence be required in the original project proposal and be a criterion for funding; and
- The funding agency (either USOE or SEA) be responsible for monitoring the data collection and recordkeeping system for both the interim and final acceptable evidence.

In most cases, the demonstration impact data will be collected as part of a regular third-party summative evaluation. However, in other instances, it may be necessary or more feasible to have the demonstration impact data collected, in part or in whole, by the project itself. The mechanism by which the demonstration impact data are collected will depend on the nature of the project and this issue will be addressed in more detail in the monograph.

The responsibility for maintaining adequate records of the data and the necessary identification information for followup for final acceptable evidence should belong to the funding agency since the future of some projects may be uncertain after termination of federal funding. We envision a time period of five years after termination of federal funding as adequate for keeping these records since this corresponds with the time frame for the final acceptable evidence.

IV. FINAL ACCEPTABLE EVIDENCE

The purpose of the final acceptable evidence is to provide data on the long-term impact and spread of vocational education demonstration projects whereas, in contrast, interim accpetable evidence assesses the more immediate impact of the projects. It is recommended that final acceptable evidence be collected one to two years following termination of federal funding, rather than up to five years as the legislative mandate suggests. The rational for this is that extending the collection of impact data beyond two years after the termination of federal funding would unduly increase the attrition rate of potential respondents and would result in other measurement problems which, in turn, would increase the cost of collecting such data.

Three criteria were developed to define final acceptable evidence. They are utilization, long-term impact, and continuation/adaption impact. Utilization refers to the extent of spread of the innovation. It includes continuation of the program in the host site and the number of sites at which the project has been adapted, including the level of implementation at these sites. The assessment of long-term impact is based on follow-up measures of the target group(s) from the original demonstration site. Continuation/adaption impact documents the immediate impact of the innovation on the target group(s) in continuing and adapting sites.

These three criteria are sufficient for assessing the effectiveness of vocational education demonstration projects since the number of individuals exposed to the innovation is addressed along with the short-range and long-range impact of the innovation on these individuals. Thus, coupled with interim acceptable evidence, the following questions concerning the project's effectiveness can be answered:

- Did the original demonstration project have a significant immediate impact on the target group(s)? (Demonstration impact criterion from interim acceptable evidence)
- Did the original demonstration project have a significant long-term impact on the target group(s)? (Long-term impact criterion from final acceptable evidence)
- How extensive is the spread of the innovation? (Utilization criterion from final acceptable evidence)
- Does the innovation have a significant immediate impact on target group(s) when it is replicated? (Continuation/adaption criterion from final acceptable evidence)

A question that remains unaddressed is the extent of long-term impact on the target group(s) from the continuing and adapting sites. Although including such a measure would carry our rational for acceptable evidence to its logical conclusion, it was felt that collection of follow-up data from continuing/adapting sites is not feasible due to the costs of such an effort.

The paradign presented in Exhibit 2 outlines the criteria, documentation, and standards for the final acceptable evidence. The criteria define the elements to be measured while the documentation addresses the type of data to be collected. Although establishing standards for each criterion is difficult due to the diversity of the demonstration projects, an attempt has been made to establish standards wherever possible.

A. Utilization

The extent of utilization is the first criterion under final acceptable evidence. This criterion is designed to assess the number of classrooms or other learning situation where the innovation is being implemented one to two years after termination of the federal grant.

The extent of utilization is documented by measuring: (1) continuation/adaption, and (2) the level of implementation. Continuation refers to the endurance of the innovation at the demonstration site while adaption refers to implementation of the innovation in organizations beyond the demonstration site. The level of implementation assesses the extent to which the continued or adapted program "matches" the original demonstration program. The term "adaption" is used instead of "adoption" because programs are seldom, if ever, adopted en toto. Rather, they are modified, however little, to fit the needs of different settings. Even the level of implementation may be affected at the original demonstration site because of changes in funding and other factors which influence the character of the project.

Establishing standards for judging the extent of utilization is difficult due to the wide range of demonstration projects. However, the minimum standard for determining project success in terms of spread should include continuation at the demonstration site and, at least, one adaption beyond the demonstration site one to two years following termination of the federal grant. More stringent standards than these may be set by funding agencies for specific types of projects. These standards should be set at the time contract or grant applications are invited and the specific standards should be discussed in the RFP.

B. Long-Term Impact

The extent of long-term impact on demonstration project target group(s) is the criterion for measuring the long-term impact of the project one to two years after exposure to it. This contrasts with the use of primary outcome measures as interim acceptable evidence for assessing impact immediately following contact with the project. Project target group(s) are usually students but can refer to other populations depending on the primary objectives of the project.

Exhibit 2. FINAL ACCEPTABLE EVIDENCE

CRITERIA	DOCUMENTATION	STANDARD
Utilization:		
Extent of utilization or spread	Program continuation in original site and adaption in other sites including level and description of implementation.	Program is being continued and/or has been adapted by others.
Long-Term Impact:		
Extent of long-term impact on demonstration project target group(s)	Followup measures of program effects on demonstration target group(s).	Significant positive effects which can be attributed to program intervention.
Continuation/Adaption Impact:		
Extent of immediate impact on target group(s) from continuing and adapting sites	Primary outcome measures from continuing and adapting sites.	Significant positive primary outcomes which can be attributed to program intervention.

Follow-up measures of project effects on demonstration target group(s) provide the documentation for this criterion. In most instances, these data would be collected from students one to two years after contact with the project to assess the lasting influence of the intervention. However, if the main objective of the demonstration was not on changing student behavior but, rather, focused on a systems change, such as installation of a new management information system (MIS), the follow-up measures would evaluate the long-term influence of the project-generated changes on the system.

Standards for judging the extent of long-term impact on demonstration project target group(s) refer to the reliability and validity of the measures used and the application of an appropriate evaluation design and data analysis plan. Follow-up student measures should be coordinated with pretest/postest measures used on the students while they were project participants. In addition, pretest, postest, and follow-up efforts should include project participants and a control or comparison group so that results can be discussed in terms of statistically significant differences which can be attributed to the intervention. Since acceptable evaluation practices are discussed extensively in the literature, there is no need to elaborate on them in this document. However, it is expected that these practices will be followed in any evaluation and they will be addressed at somewhat greater length in the monograph. In the few cases where the main objective of the demonstration was systems changes rather than people changes, similar measurement rigor should be used in assessing the long-term effects of the project.

C. Continuation/Adaption Impact

Continuation/adaption impact is the criterion that measures the extent of immediate impact the innovation has on target group(s) from the continuing and adapting sites. Primary outcome measures are used as documentation of this criterion and are similar to those used to assess the immediate impact of the demonstration project on the target group(s) under interim acceptable evidence except that, as final acceptable evidence, the primary outcome measures may be changed to reflect the changes in the program as it is continued or adapted. Primary outcomes are project results which are measured upon completion of exposure to the project and are related to the project's primary objectives. Most often primary outcomes, like follow-up measures, refer to the impact on students since the primary objectives of most vocational education demonstration projects focus on improvement in students. However, as was mentioned earlier, there are exceptions. Therefore, project outcomes are stated as primary outcomes rather than student outcomes and are directly related to the project's primary objectives. Using the MIS case as an example, the primary objective would be to improve the management information system, and the primary outcome would measure the extent to which the management information system

was improved. As with the standards for long-term impact, the standards for continuation/adaption impact depend on the reliability and validity of the measures used and the application of an appropriate evaluation design and data analysis plan.

D. Suggestions for Data Collection

During the process of determining the necessary criteria, documentation, and standards for the final acceptable evidence, considerable thought was given to the most feasible data collection methodologies and related issues. Although the subject will not be covered extensively in this document, some of the issues are discussed briefly in this section. One of the first issues that was considered was who will be responsible for collection of the final acceptable evidence since it is to be collected after termination of the federal grant. It became apparent that since the funding agency (either USOE or an SEA) oversees the demonstration project, it is in the best position to follow the diffusion process and, thus, be responsible for collection of the final acceptable evidence. Furthermore, program effectiveness is considered a major concern of the funding agency.

Another issue was the cost of collecting these data. An effort was made to select criteria, documentation, and standards for final acceptable evidence that would provide a balance between what is considered sufficient to assess program effectiveness and the cost of collecting the data. Much of the necessary data for the final acceptable evidence can be obtained from existing records and reports from continuing and adapting sites. Data not available in this manner can be obtained through short mail surveys or telephone interviews.

Documentation of the extent of utilization raises several issues since it includes the enumeration of sites where the program is being implemented, the level of implementation, and a description of the components from the demonstration project that are being implemented. Stated as questions, these issues are: (1) How can adapting sites be identified? (2) How can the level of implementation be measured? and (3) How can the components of the demonstration project which have been implemented be identified? Enumeration of sites is based on a count of adapting sites plus continuation of the program at the host site. Identification of adapting sites can be done by canvassing organizations to which materials were disseminated or whose staff visited or received training by the demonstration project. Level of implementation may be subjectively evaluated by comparing the continued and adapted programs to the demonstration project, for example, on a scale of low, medium, and high. To facilitate program description and the measurement of primary outcomes from continuing and adapting sites, demonstration project components which are being implemented should be stated as primary objectives at all continuing

and adapting sites so that demonstration project objectives and continuation/adaption objectives can be related to each other in order to identify the component of the demonstration project which is being implemented. This identification mechanism is particularly important when the demonstration project is only partially continued or adapted.

The evaluation of long-term impact requires follow-up of demonstration project participants as well as a comparison group. Therefore, adequate records of these groups should be kept by the demonstration project, and following termination of the project, by the funding agency. These records should include the names, addresses, telephone numbers, and outcome data of individuals in both the participant and comparison groups.

The attrition rate and cost of follow-up are two issues related to the collection of long-term impact data. The attrition rate can be kept at a minimum by collecting the data one to two years following exposure to the project rather than extending the time frame to five years.

Documentation of the extent of impact on target group(s) from continuing and adapting sites is based on primary outcome measures. However, more often than not, the demonstration product is adapted to fit specific needs of a new target group or new community rather than adopted en toto. Thus, the outcome measures may be changed to reflect these changes. This raises the issue of how the primary outcomes at continuing/adapting sites can be related to the primary outcomes from the demonstration project so that overall program effectiveness can be assessed. This can be done by specifying the components of the demonstration project which are being continued or adapted, and comparing these to the overall demonstration. The result should be a means of relating primary outcome data from continuing/adapting sites to primary outcome data from the demonstration project.

V. SUMMARY

In response to the legislative mandate and other needs identified by the U.S. Office of Education, interim and final acceptable evidence for assessing the effectiveness of vocational education demonstration projects were formulated. The evidences include criteria, documentation, and standards. Interim acceptable evidence refers to that evidence of impact which should be expected during the last phase of federal support while final acceptable evidence focuses on the evidence of impact which should be expected within five years after the termination of federal support.

As a first step, an extensive literature review was conducted. The purpose of the literature review was to establish the state of the art in measuring the impact of educational innovations. Based on the literature review, a framework for interim and final acceptable evidence of project impact was developed. This framework was reviewed and discussed in a two-day meeting with a panel of experts in the field of vocational education and, subsequently, revised and finalized.

Three criteria were developed to define interim acceptable evidence of program impact: demonstration impact, dissemination, and efforts toward institutionalization. Demonstration impact refers to the extent of immediate impact the demonstration project has on the target group(s) and documentation is obtained from primary outcome measures at the demonstration site. Standards for success are indicated by significant positive primary outcomes which can be attributed to program intervention. Dissemination addresses both the quality and extent of dissemination activities. Documentation for the former involves the evaluation of dissemination strategies and materials while the standards focus on whether sufficient coverage and details of the program are included to facilitate replication. The extent of dissemination is documented by the enumeration of dissemination activities while the standards are based on the achievement of the dissemination objectives which were stated in the project plan. Program longevity is the focus of efforts toward institutionalization. Documentation for this criterion consists of a description of these efforts and the standard is the presence of such efforts.

It is suggested that plans for the collection of the required data and the keeping of adequate records for the interim acceptable evidence be outlined in the original project proposal. These plans should be a criterion for funding and the implementation of these plans should be monitored by the funding agency.

The following three criteria were developed to define final acceptable evidence of program impact: utilization, long-term impact, and continuation/adaption impact. Utilization refers to the extent of implementation or spread of the program and is measured by program continuation in the original site and adaption in other sites including level and description of implementation. Long-term impact means the extent of long-term impact on the demonstration project target group(s). Documentation for this are followup measures of program effects on demonstration target group(s) with standards of success being indicated by significant positive effects which can be attributed to program intervention. Continuation/adaption impact is the extent of immediate impact on target group(s) from continuing and adapting sites documented by the use of primary outcome measures from continuing and adapting sites. Standards for this criterion are based on significant positive primary outcomes which can be attributed to program intervention.

Suggestions for data collection include responsibility by the funding agency to oversee adequate recordkeeping by the demonstration project to facilitate future collection of impact data and responsibility for overseeing the actual collection of the impact data.

APPENDIX

PANEL MEETING PARTICIPANTS

Development Associates, Inc.:

Howard Fleischman, Project Director

JoAnne Willette, Measurement Specialist

Diana Martinez Boyd, Research Assistant

USOE:

Earl Dodrill, Demonstration Branch, Division of Research and Demonstration, Bureau of Occupational and Adult Education

Joyce Cook, Division of Vocational State Program Operations, Bureau of Occupational and Adult Education

Panelists:

Alice Scates, Office of Evaluation and Dissemination, USOE

Henry David, National Institute of Education

Ralph Bregman, National Advisory Council on Vocational Education

Thomas Bogetich, California Advisory Council on Vocational Education

James Reid, National Association of State Directors of Vocational Education

Clarence Burdett, State Director of Vocational Education, West Virginia

Dean Griffin, American Vocational Association

Ronald McCage, RCU Director, Illinois

Edward Fernandez, Project Director, Las Cruces, New Mexico

James Doyle, Director of Research, Evaluation and Planning, Wayne-Westland School District, Wayne, Michigan

Anthony H. Pascal, RAND Corporation

Susan Sherman, National Academy of Sciences

William Hull, National Center for Research in Vocational Education, Ohio State University

Malcolm Young, Development Associates, Inc.

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